

SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT: Shipman, Robert
Leushner, James
Dunn, James M.

(ii) TITLE OF INVENTION: METHOD AND REAGENTS FOR TESTING FOR
MUTATIONS IN THE BRCA1 GENE

(iii) NUMBER OF SEQUENCES: 77

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: Oppedahl & Larson
(B) STREET: 1992 Commerce Street Suite 309
(C) CITY: Yorktown
(D) STATE: NY
(E) COUNTRY: US
(F) ZIP: 10598

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Diskette - 3.5 inch, 1.44 Mb storage
(B) COMPUTER: IBM compatible
(C) OPERATING SYSTEM: MS DOS
(D) SOFTWARE: Word Perfect

(vi) CURRENT APPLICATION DATA :

(A) APPLICATION NUMBER:

(B) FILING DATE:

(C) CLASSIFICATION:

(vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER:

(B) FILING DATE:

(viii) ATTORNEY/AGENT INFORMATION :

(A) NAME: Larson, Marina T.
(B) REGISTRATION NUMBER: 32,038
(C) REFERENCE/DOCKET NUMBER: VGEN.P-028-US

(ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: (914) 245-3252
(B) TELEFAX: (914) 962-4330
(C) TELEX:

(2) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL: no

(iv) ANTI-SENSE: no

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

GGTAGCCCCT TGGTTTCCGT G 21

(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: yes
- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:
- (A) ORGANISM: human
- (ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

ACGCCAGTAC CCCAGAGCAT C

(2) INFORMATION FOR SEQ ID NO: 3:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: no
- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:
- (A) ORGANISM: human
- (ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

AATGATGAAA ATGAAGTTGT C 21

(2) INFORMATION FOR SEQ ID NO: 4:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: yes

- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:
- (A) ORGANISM: human
- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

GTTTCATTTC ATAGGAGATA A 21

- (2) INFORMATION FOR SEQ ID NO: 5:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid
 - (iii) HYPOTHETICAL: no
 - (iv) ANTI-SENSE: no
 - (v) FRAGMENT TYPE: internal
 - (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: human
 - (ix) FEATURE:
 - (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

GAGCCTCATT TATTTTCTTT T 21

- (2) INFORMATION FOR SEQ ID NO: 6:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid
 - (iii) HYPOTHETICAL: no
 - (iv) ANTI-SENSE: yes
 - (v) FRAGMENT TYPE: internal
 - (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: human
 - (ix) FEATURE:
 - (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

TGAAGGACAA AAACAAAAGC T 21

- (2) INFORMATION FOR SEQ ID NO: 7:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: other nucleic acid
(iii) HYPOTHETICAL:no
(iv) ANTI-SENSE: no
(v) FRAGMENT TYPE: internal
(vi) ORIGINAL SOURCE:
(A) ORGANISM: human
(ix)FEATURE:
(D) OTHER INFORMATION: amplification primer for BRCA1 gene
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

ACCTTAAATT TTTCAACAGC T 21

(2) INFORMATION FOR SEQ ID NO: 8:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: other nucleic acid
(iii) HYPOTHETICAL:no
(iv) ANTI-SENSE: yes
(v) FRAGMENT TYPE: internal
(vi) ORIGINAL SOURCE:
(A) ORGANISM: human
(ix)FEATURE:
(D) OTHER INFORMATION: amplification primer for BRCA1 gene
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

CTCTACAGAA AACACAAAAT T 21

(2) INFORMATION FOR SEQ ID NO: 9:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: other nucleic acid
(iii) HYPOTHETICAL:no
(iv) ANTI-SENSE: no
(v) FRAGMENT TYPE: internal
(vi) ORIGINAL SOURCE:
(A) ORGANISM: human
(ix)FEATURE:
(D) OTHER INFORMATION: amplification primer for BRCA1 gene
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

GCCTTTTGAG TATTCTTCT A 21

(2) INFORMATION FOR SEQ ID NO: 10:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: yes
- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: human
- (ix) FEATURE:
 - (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

TTCTACTTTT CCTACTGTGG T 21

- (2) INFORMATION FOR SEQ ID NO: 11:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid
 - (iii) HYPOTHETICAL: no
 - (iv) ANTI-SENSE: no
 - (v) FRAGMENT TYPE: internal
 - (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: human
 - (ix) FEATURE:
 - (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

AGGTTTTCTA CTGTTGCTGC A 21

- (2) INFORMATION FOR SEQ ID NO: 12:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid
 - (iii) HYPOTHETICAL: no
 - (iv) ANTI-SENSE: yes
 - (v) FRAGMENT TYPE: internal
 - (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: human
 - (ix) FEATURE:
 - (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

CAGCACTTCA CTCTCATTCT T 21

(2) INFORMATION FOR SEQ ID NO: 13:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL: no

(iv) ANTI-SENSE: no

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

CATACATTTT TCTCTAACTG C 21

(2) INFORMATION FOR SEQ ID NO: 14:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL: no

(iv) ANTI-SENSE: yes

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

GAAGAAGAAG AAAACAAATG G 21

(2) INFORMATION FOR SEQ ID NO: 15:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL: no

(iv) ANTI-SENSE: no

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

- (A) ORGANISM: human
- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

AGGAGGAAAA GCACAGAACT G 21

- (2) INFORMATION FOR SEQ ID NO:16:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid
 - (iii) HYPOTHETICAL: no
 - (iv) ANTI-SENSE: yes
 - (v) FRAGMENT TYPE: internal
 - (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: human
 - (ix) FEATURE:
 - (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

TACTTAAAAA ACCTGAGACC C 21

- (2) INFORMATION FOR SEQ ID NO: 17:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid
 - (iii) HYPOTHETICAL: no
 - (iv) ANTI-SENSE: no
 - (v) FRAGMENT TYPE: internal
 - (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: human
 - (ix) FEATURE:
 - (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

CAAGTACATT TTTTAAACCC T 21

- (2) INFORMATION FOR SEQ ID NO:18:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL:no
 (iv) ANTI-SENSE: yes
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix)FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

AAAGAGAGAA ACATCAATCC T 21

(2) INFORMATION FOR SEQ ID NO: 19:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL:no
 (iv) ANTI-SENSE: no
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix)FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:

TTTGACAGTT CTGCATACAT G 21

(2) INFORMATION FOR SEQ ID NO: 20:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL:no
 (iv) ANTI-SENSE: yes
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix)FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:

CAAATGGTCT TCAGAATAAT C 21

(2) INFORMATION FOR SEQ ID NO: 21:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL: no
 (iv) ANTI-SENSE: no
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix) FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

CTCCAAGGTG TATGAAGTAT G 21

(2) INFORMATION FOR SEQ ID NO: 22:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL: no
 (iv) ANTI-SENSE: yes
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix) FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

CAGCCTTTTC TACATTCATT C 21

(2) INFORMATION FOR SEQ ID NO:23:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL: no
 (iv) ANTI-SENSE: no
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix) FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:

ATTACAGCAT GAGAACAGCA G 21

(2) INFORMATION FOR SEQ ID NO: 24:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL: no

(iv) ANTI-SENSE: yes

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:

GAGTCATCAG AACCTAACAG T 21

(2) INFORMATION FOR SEQ ID NO: 25:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL: no

(iv) ANTI-SENSE: no

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:

ATAGCAGCAT TCAGAAAGTT A 21

(2) INFORMATION FOR SEQ ID NO: 26:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL: no

(iv) ANTI-SENSE: yes

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:26:

TCAGTAACAA ATGCTCCTAT A 21

- (2) INFORMATION FOR SEQ ID NO:27:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid
 - (iii) HYPOTHETICAL: no
 - (iv) ANTI-SENSE: no
 - (v) FRAGMENT TYPE: internal
 - (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: human
 - (ix) FEATURE:
 - (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:27:

CTCCCCAACT TAAGCCATGT A 21

- (2) INFORMATION FOR SEQ ID NO:28:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid
 - (iii) HYPOTHETICAL: no
 - (iv) ANTI-SENSE: yes
 - (v) FRAGMENT TYPE: internal
 - (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: human
 - (ix) FEATURE:
 - (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:28:

TCGAGTGATT CTATTGGGTT A 21

- (2) INFORMATION FOR SEQ ID NO:29:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL:no
 (iv) ANTI-SENSE: no
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix) FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29:

TGGTCATGAG AATAAAACAA A 21

(2) INFORMATION FOR SEQ ID NO: 30:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL:no
 (iv) ANTI-SENSE: yes
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix) FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:30:

TGGCATTG TGTACTTTT T 21

(2) INFORMATION FOR SEQ ID NO: 31:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL:no
 (iv) ANTI-SENSE: no
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix) FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:31:

AAGCCACCT AATTGTACTG A 21

(2) INFORMATION FOR SEQ ID NO: 32:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL: no
 (iv) ANTI-SENSE: yes
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix) FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:32:

TTTGGGGTCT TCAGCATTAT T 21

(2) INFORMATION FOR SEQ ID NO: 33:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL: no
 (iv) ANTI-SENSE: no
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix) FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:33:

AAGAAGAGAA ACTAGAAACA G 21

(2) INFORMATION FOR SEQ ID NO: 34:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL: no
 (iv) ANTI-SENSE: yes
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix) FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:34:

AATGGATACT TAAAGCCTTC T 21

(2) INFORMATION FOR SEQ ID NO: 35:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL: no
 (iv) ANTI-SENSE: no
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix) FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:35:

AAGGGACTAA TTCATGGTTG T 21

(2) INFORMATION FOR SEQ ID NO: 36:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL: no
 (iv) ANTI-SENSE: yes
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix) FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:36:

GTCTGTACAG GCTTGATATT A 21

(2) INFORMATION FOR SEQ ID NO: 37:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL: no
 (iv) ANTI-SENSE: no
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix) FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:37:

TGAATGTGAA CAAAAGGAAG A 21

(2) INFORMATION FOR SEQ ID NO: 38:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL: no

(iv) ANTI-SENSE: yes

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:38:

ATGGGAAAAA GTGGTGGTAT A 21

(2) INFORMATION FOR SEQ ID NO: 39:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL: no

(iv) ANTI-SENSE: no

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:39:

AACGAAACTG GACTCATTAC T 21

(2) INFORMATION FOR SEQ ID NO: 40:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL: no

(iv) ANTI-SENSE: yes

- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: human
- (ix) FEATURE:
 - (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:40:

TGTTTCTACC TAGTTCTGCT T 21

- (2) INFORMATION FOR SEQ ID NO: 41:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid
 - (iii) HYPOTHETICAL: no
 - (iv) ANTI-SENSE: no
 - (v) FRAGMENT TYPE: internal
 - (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: human
 - (ix) FEATURE:
 - (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:41:

TGGGCTCCAG TATTAATGAA A 21

- (2) INFORMATION FOR SEQ ID NO: 42:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid
 - (iii) HYPOTHETICAL: no
 - (iv) ANTI-SENSE: yes
 - (v) FRAGMENT TYPE: internal
 - (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: human
 - (ix) FEATURE:
 - (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:42:

TCAGCAAAAC TAGTATCTTC C 21

- (2) INFORMATION FOR SEQ ID NO: 43:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

(D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL:no
 (iv) ANTI-SENSE: no
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix) FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:43:

CATGCATCTC AGGTTTGTTT C 21

(2) INFORMATION FOR SEQ ID NO: 44:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL:no
 (iv) ANTI-SENSE: yes
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix) FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:44:

TATGCCTAGT AGACTGAGAA G 21

(2) INFORMATION FOR SEQ ID NO: 45:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL:no
 (iv) ANTI-SENSE: no
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix) FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:45:

GCTTCCCTGC TTCCAACACT T 21

(2) INFORMATION FOR SEQ ID NO: 46:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: yes
- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:46:

TGCCTCATTT GTTTGGAAGA A 21

(2) INFORMATION FOR SEQ ID NO: 47:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: no
- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:47:

ACAGTGCAGT GAATTGGAAG A 21

(2) INFORMATION FOR SEQ ID NO: 48:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: yes
- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:48:

CTCCCCAAAA GCATAAACAT T 21

(2) INFORMATION FOR SEQ ID NO: 49:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: other nucleic acid
(iii) HYPOTHETICAL: no
(iv) ANTI-SENSE: no
(v) FRAGMENT TYPE: internal
(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:49:

GCGTTTATAG TCTGCTTTTA C 21

(2) INFORMATION FOR SEQ ID NO: 50:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: other nucleic acid
(iii) HYPOTHETICAL: no
(iv) ANTI-SENSE: yes
(v) FRAGMENT TYPE: internal
(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:50:

TTGGAGTGGT ATTCTTTTAA G 21

(2) INFORMATION FOR SEQ ID NO: 51:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: other nucleic acid
(iii) HYPOTHETICAL: no
(iv) ANTI-SENSE: no

- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:
- (A) ORGANISM: human
- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:51:

TATTTTCATTT TCTTGGTACC A 21

- (2) INFORMATION FOR SEQ ID NO: 52:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid
 - (iii) HYPOTHETICAL: no
 - (iv) ANTI-SENSE: yes
 - (v) FRAGMENT TYPE: internal
 - (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: human
 - (ix) FEATURE:
 - (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:52:

ATAAAGGGGA AGGAAAGAAT T 21

- (2) INFORMATION FOR SEQ ID NO: 53:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid
 - (iii) HYPOTHETICAL: no
 - (iv) ANTI-SENSE: no
 - (v) FRAGMENT TYPE: internal
 - (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: human
 - (ix) FEATURE:
 - (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:53:

GAATTATCAC TATCAGAACA A 21

- (2) INFORMATION FOR SEQ ID NO: 54:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

(D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL:no
 (iv) ANTI-SENSE: yes
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix)FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:54:

CAATCAGAGT TCAATATAAA T 21

(2) INFORMATION FOR SEQ ID NO: 55:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL:no
 (iv) ANTI-SENSE: no
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix)FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:55:

CCAGCAAGTA TGAAATGTCC T 21

(2) INFORMATION FOR SEQ ID NO: 56:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: other nucleic acid
 (iii) HYPOTHETICAL:no
 (iv) ANTI-SENSE: yes
 (v) FRAGMENT TYPE: internal
 (vi) ORIGINAL SOURCE:
 (A) ORGANISM: human
 (ix)FEATURE:
 (D) OTHER INFORMATION: amplification primer for BRCA1 gene
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:56:

CTTTATGTAG GATTCAGAGT A 21

(2) INFORMATION FOR SEQ ID NO: 57:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: no

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:57:

CTTAACAGAG ACCAGAACTT T 21

(2) INFORMATION FOR SEQ ID NO: 58:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: yes

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:58:

TTTCCAGAAT GTTGTTAAGT C 21

(2) INFORMATION FOR SEQ ID NO: 59:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: no

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

100994426200T

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:59:

CTAGTATTCT GAGCTGTGTG C 21

(2) INFORMATION FOR SEQ ID NO: 60:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL: no

(iv) ANTI-SENSE: yes

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:60:

CCTCGCCTCA TGTGGTTT T 21

(2) INFORMATION FOR SEQ ID NO: 61:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL: no

(iv) ANTI-SENSE: no

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:61:

CTCTTTAGCT TCTTAGGACA G 21

(2) INFORMATION FOR SEQ ID NO: 62:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL: no

(iv) ANTI-SENSE: yes

(v) FRAGMENT TYPE: internal

- (vi) ORIGINAL SOURCE:
- (A) ORGANISM: human
- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:62:

CTCAAGACTC AAGCATCAGC A 21

- (2) INFORMATION FOR SEQ ID NO: 63:
- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: no
- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:
- (A) ORGANISM: human
- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:63:

TGTGAATCGC TGACCTCTCT A 21

- (2) INFORMATION FOR SEQ ID NO: 64:
- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: yes
- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:
- (A) ORGANISM: human
- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:64:

AAGTGGTGCA TTGATGGAAG G 21

- (2) INFORMATION FOR SEQ ID NO: 65:
- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: no
- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:
- (A) ORGANISM: human
- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:65:

TCTCTTATCC TGATGGGTGT G 21

- (2) INFORMATION FOR SEQ ID NO:66:
- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: yes
- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:
- (A) ORGANISM: human
- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:66:

ATACAGAGTG GTGGGGTGAG A 21

- (2) INFORMATION FOR SEQ ID NO: 67:
- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: no
- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:
- (A) ORGANISM: human
- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:67:

CAGTGGTGCG ATCTCAGCTC A 21

- (2) INFORMATION FOR SEQ ID NO: 68:
- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: yes
- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:
- (A) ORGANISM: human
- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:68:

AAGGCTGGTG CTGGAAGTCT G 21

- (2) INFORMATION FOR SEQ ID NO: 69:
- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: no
- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:
- (A) ORGANISM: human
- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:69:

TAGAGGGCCT GGGTTAAGTA T 21

- (2) INFORMATION FOR SEQ ID NO: 70:
- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: yes
- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:
- (A) ORGANISM: human
- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:70:

GAGAAGACTT CTGACGCTAC C 21

(2) INFORMATION FOR SEQ ID NO: 71:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL: no

(iv) ANTI-SENSE: no

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:71:

CCTACTTTGA CACTTTGAAT G 21

(2) INFORMATION FOR SEQ ID NO: 72:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL: no

(iv) ANTI-SENSE: yes

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

(ix) FEATURE:

(D) OTHER INFORMATION: amplification primer for BRCA1 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:72:

AATGTGCCAA GAACTGTGCT A 21

(2) INFORMATION FOR SEQ ID NO: 73:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(iii) HYPOTHETICAL: no

(iv) ANTI-SENSE: no

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:73:

TAATCTCTGC TTGTGTTCTC T 21

- (2) INFORMATION FOR SEQ ID NO: 74:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid
 - (iii) HYPOTHETICAL: no
 - (iv) ANTI-SENSE: yes
 - (v) FRAGMENT TYPE: internal
 - (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: human
- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:74:

GTAGCCAGGA CAGTAGAAGG A 21

- (2) INFORMATION FOR SEQ ID NO: 75:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid
 - (iii) HYPOTHETICAL: no
 - (iv) ANTI-SENSE: no
 - (v) FRAGMENT TYPE: internal
 - (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: human
- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:75:

AAACCTTCCA AATCTTCAAA T 21

- (2) INFORMATION FOR SEQ ID NO: 76:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: other nucleic acid
 - (iii) HYPOTHETICAL: no

- (iv) ANTI-SENSE: yes
- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:
- (A) ORGANISM: human
- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:76:

TTCTGTTTCAT TTGCATAGGA G 21

- (2) INFORMATION FOR SEQ ID NO: 77:
- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 21
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
- (iii) HYPOTHETICAL: no
- (iv) ANTI-SENSE: yes
- (v) FRAGMENT TYPE: internal
- (vi) ORIGINAL SOURCE:
- (A) ORGANISM: human
- (ix) FEATURE:
- (D) OTHER INFORMATION: amplification primer for BRCA1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:77:

TGTAAGGTCA ATTCTGTTCA T 21